

UPM Steyrermühl

ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY 2021



UPM Steyrmühl

Founded in 1868, over the decades the paper mill has been a key factor in the industrialization of Laakirchen, Austria. **Steyrmühl Sägewerks-gesellschaft m.b.H. Nfg. KG**, which is not only the main wood chip supplier to the paper mill but also a manufacturer of saw-cut timber and by-products of saw cutting, as well as a supplier of wood fuel to the EEVG, also operates under the **UPM-Kymmene Austria GmbH** umbrella.

In cooperation with UPM Steyrmühl and a group outside the UPM Group, **EEVG – Entsorgungs- und Energieverwertungsgesellschaft m.b.H.** provides the energy required for the production processes in the form of electricity and steam by operating a fluidized bed boiler. In addition to various waste materials from the fibre and paper production process, the company also uses discarded wood fibres. Everything at the site runs green and sustainably: obtained from a circular economy, Cinerit®, an EEVG product, is best used as a land stabilizing agent in road construction or flood protection (www.cinerit.at).

Efficient production processes are supported – from raw material preparation to the vehicle fleet and internal logistics. This is assured by **SLR – Steyrmühl Logistik & Recycling GmbH** (www.slr.co.at), whose involvement allows the other companies operating at the site to concentrate on their core competencies.

Finally, the **wastewater treatment plant** operated by UPM Steyrmühl at the site treats both operational and municipal wastewater before it is discharged into the Traun, a river with drinking water.

Important: This environmental statement relates exclusively to the UPM-Kymmene Austria GmbH paper mill and the plants it operates (EEVG – fluidized bed boiler, wastewater treatment plant).



Production capacity	Up to 290,000 tonnes per year
Employees	Approximately 210 including apprentices
Products	Standard and improved newsprint: UPM News UPM Prime UPM EcoBasic UPM Color UPM Brite
Certifications	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ISO 9001 – Quality Management System ISO 50001 – Energy Management System ISO 45001 – Health and Safety Management System PEFC Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council All certificates can be found in the UPM Certificate Finder (available at www.upm.com/responsibility).
Ecolabels	“Blue Angel” ecolabel (RAL-UZ 72) for UPM News, UPM EcoBasic and UPM EcoPrime 68 EU Ecolabel for UPM News and UPM EcoBasic
NACS 17.12	



UPM Steyrmühl Environmental and Societal Responsibility 2021 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM’s pulp and paper mills (available at www.upm.com) and provides mill-specific environmental and societal performance data and trends for the year 2021. The annually updated mill supplements and the UPM Corporate Environmental and Societal Responsibility Statement together form the joint EMAS Statement of UPM Corporation. The next Updated UPM Corporate Environmental Statement and also this supplement will be published in 2023.

UPM delivers renewable and responsible solutions and innovate for a future beyond fossils across six business areas: UPM Fibres, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. As the industry leader in responsibility, we are committed to the UN Business Ambition for 1.5°C and the science-based targets to mitigate climate change. We employ 17,000 people worldwide and our annual sales are approximately EUR 9.8 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. www.upm.com



For more information about FSC certification visit www.fsc.org



For more information about PEFC certification visit www.pefc.org



EU Ecolabel : FI/011/001



www.blauer-engel.de/uz72

Review of the year 2021

Long tradition of environmental protection

As a member of the Finnish UPM Group, the Steyrmühl site places great importance on environmental protection. We are committed to our responsibility to the environment and to minimizing the impact of our production processes on the environment and our employees. The continuous improvement process at the Steyrmühl site includes the reduction in use of water and fossil fuels, as well as a reduction in odour emissions. The existing environmental management system in accordance with ISO 14001 guarantees that applicable environmental regulations have been complied with. There were no violations of legal environmental provisions, nor were there any Clean Run 3–5 incidents. The environmental aspects relevant for the Steyrmühl site, emissions from wastewater and air as well as waste recycling and fossil fuels are evaluated with the aid of a risk analysis. This analysis is used to derive necessary environmental measures.

Focus on odour emissions

As in the previous two years, a major focus of environmental measures at the Steyrmühl site was on reducing occasional odour emissions, which are

mainly caused by H₂S emissions. These have led to repeated complaints from the neighbourhood. The implementation of a programme of measures to combat odour emissions began as early as 2019: ventilation measures, improvements in process-chemical conditions, reduction of dwell times for the water circuits as well as defined cleaning measures were implemented. In order to document the effects of all these measures, continuous measurements were taken across the entire site using both mobile and permanently installed H₂S probes. In addition, meteorological measurements and H₂S emission measurements were carried out in 2019 and 2021 by the Office of the State Government of Upper Austria. The evaluation of the measurements at the end of 2021 shows a significant reduction in H₂S emissions and thus proves the effectiveness of the measures taken. Another indicator that the measures taken are having an effect is the decreasing number of complaints from neighbours.

Legal compliance

During the annual internal legal compliance audit, it was determined that essential legal norms and regulations were being met. This is confirmed by the

deficiency-free environmental inspection and the renewed water permits.

Environmental inspection 2021

The official environmental inspection is carried out every three years. Noise engineering, wastewater chemistry, air technology and waste management systems are evaluated. During the 2021 inspection, no deficiencies were found, nor were official measures imposed on the site.

Water permits

Every 15 years, the operator of the Steyrmühl site must apply to the competent authority for the re-award of water permits. This permit includes, on the one hand, the drainage of purified effluents, precipitants and surface waters from the site and, on the other hand, the supply of service water to the production mills with bank filtrate water from the Traun. Due to the official requirements being continuously observed and the satisfactory checks (external monitoring of the thresholds, various analyses of the Traun) carried out by the authority, both permits were approved again in 2021 to the same extent.



Thomas Detzlhof
Environmental Officer

Jasmin Kemptner
Deputy Environmental Officer

Ernst Spitzbart
Managing Director

Contribution to UN Sustainable Development Goals in 2021



Waste

100%

of the production waste at site reused for either heat or raw materials.

Overall,

92%

of fluidized bed boiler ash produced in 2021 recycled.

76%

of 2021's fly ash recycled as Cinerii®.



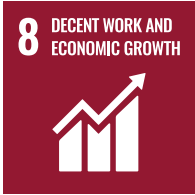
Air

86%

of CO₂ emitted comes from regenerative fuels (fibre sludge and waste wood). The Steyrermühl site is therefore making a sustainable contribution to reducing fossil CO₂ emissions.

Specific nitrogen oxide emissions from power plants in the period 2012 to 2021 reduced by

75%

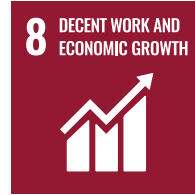


Safety

In 2021, employees submitted

834

safety observations. This is an important contribution to increasing safety at the site.



Health

18

employees took part in in-house flu vaccination campaign in 2021.

54

employees received first and second COVID-19 vaccination in 2021 as part of cross-company vaccination campaign.



Certified fibre

In 2021, the share of PEFC/FSC-certified fibres (wood chips and waste paper) was

90%



Energy

Natural gas consumption in the period 2012 to 2021 reduced by

93%

Specific energy use (kWh per tonne of paper) of biogenic fuels increased by

107%

in the 2012 to 2021 period.

100%

of purchased external power from hydropower.

Air



The energy generation facilities at the Steyermühl site are state of the art. Both NO_x emissions and all other emissions from the energy generation facilities were kept well below the required thresholds. In 2021, the half-hour and daily mean values were not exceeded. The fluidized bed boiler (FBB) was fuelled in 2021 primarily with internal production waste from UPM-Kymmene Austria GmbH and wood waste from the sawmill, which is also located on site.

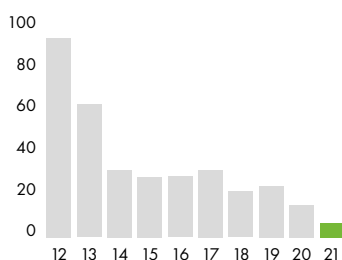
Waste materials from the neighbouring Laakirchen Papier AG paper mill and waste timber from the building trade were also used as fuel. In 2021, the use of natural gas as a fuel in the fluidized bed boiler was greatly reduced thanks to the recovery of thermal energy from this biogenic waste. This led to a sustainable reduction in fossil CO₂ emissions.

Waste



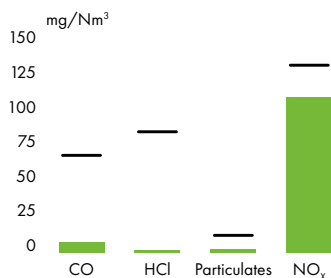
As part of a contribution to the circular economy, no non-recyclable waste is generated at the Steyermühl site. The largest material flow – fibrous residue – is used as fuel in the fluidized bed boiler. In order to keep the proportion of fossil fuels as low as possible, fibrous residues from other paper mills are also used for thermal processing at the site. The majority of the resulting fly ash is used in the construction industry as a stabilizing agent under the product name Cinerit®. Seasonal and weather-related sales fluctuations are cushioned by the use of interim storage. In addition, our fly ash is used as a filler in the cement industry. Other waste is passed on exclusively to specialist waste management companies. They recycle the waste in compliance with legal provisions.

Carbon dioxide emissions (fossil), CO₂



Compared to the year 2000 (± 100 %).

Air emissions FBB



FBB = fluidized bed boiler

— Limit value

Water

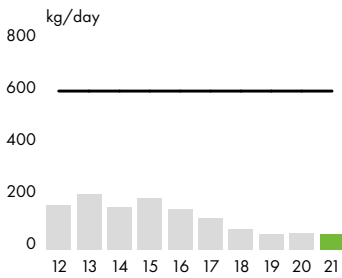


Bank filtrate water from the Traun is used both as the process water required for paper production and the cooling water for the fluidized bed boiler. Wastewater is purified at the company's four-stage treatment plant on site. The capacity of the wastewater treatment plant is equivalent to that of a plant serving a city of 333,333 inhabitants. The quality of the purified wastewater is regularly monitored both by the company's own laboratory and the competent authority. In 2021, all the prescribed thresholds for the discharged wastewater were again

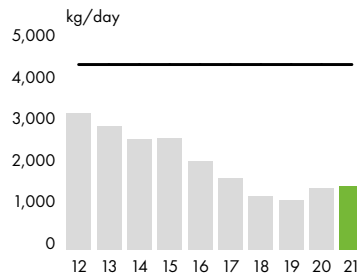
met. In 2021, the authority re-awarded the existing water permits to the same extent as previously. The thresholds will be adjusted to the new legal requirements.

One declared environmental goal of the Steyrmühl site is sustainable reduction in the volumes of fresh water required. This was already reduced to 14 m³/t in the previous reporting year. In 2021, a further reduction of the fresh water volume by 2 m³/t was possible. We would like to continue on this successful path.

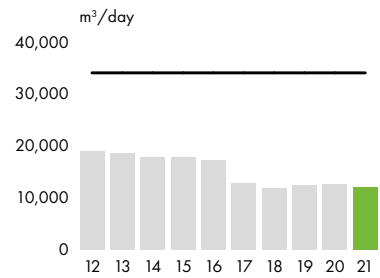
Biological oxygen demand, BOD₅



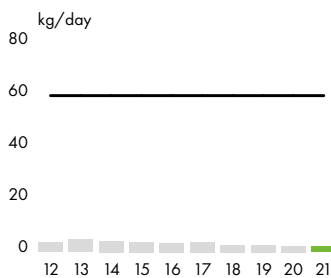
Chemical oxygen demand, COD



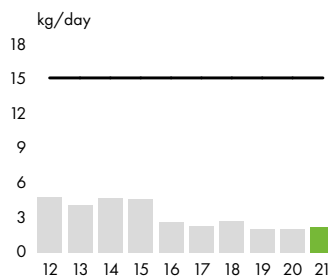
Wastewater volume



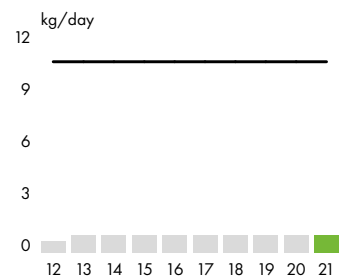
Nitrogen (inorganic), N



Phosphorus, P



Adsorbable organic halogen compounds, AOX



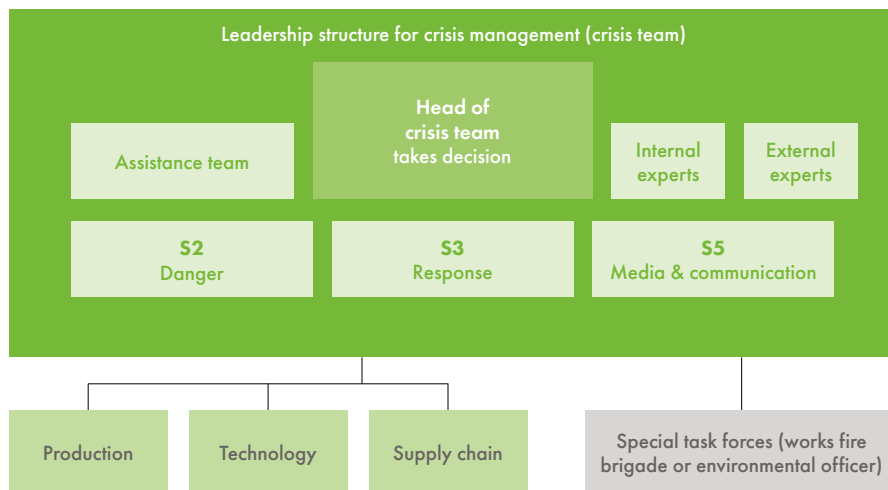
— Limit value

Organizational structure and emergency organization

Crisis team

There is a crisis team in place at Steyrermühl to ensure that the site is able to respond effectively in times of crisis. The team is made up of representatives from all areas and across the entire business structure. This ensures that the company is still in a position to make decisions even in exceptional circumstances.

Since the start of the COVID-19 pandemic in March 2020, the crisis team has met at least twice a week. The aim is to always be up to date with the latest legal regulations, to recognize regional developments and to prevent illness at the site.



Societal responsibility

Work safety

Safely to work –

and safely back home afterwards!

Occupational health and safety is a priority at UPM. In the reporting year 2021, for example, the focus was on a number of current issues regarding occupational safety. An automatic gas warning system was installed to alert employees in areas of the site at increased risk of exposure to an H₂S leak. Another topic of focus was Lock out–Tag out–Try out, or LoToTo for short: during downtime and maintenance work, releasing various energy supplies (electrical, pneumatic, hydraulic and mechanical) correctly and systematically is essential for the protection of employees.

In 2021, we again achieved our ultimate goal, which was not to record any serious or fatal accidents at the Steyrermühl site. However, despite the numerous measures and protective equipment in place, there were several accidents involving employees of contracting companies. An accident involving a UPM employee working with a heavy load resulted in lost time of the employee. As

a result of this accident, we will focus on hitching and transporting heavy loads in the coming reporting year.

Health protection

Employee health protection also enjoys a high priority at the Steyrermühl site. For example, we are the Group leader in internal COVID-19 testing. Both antigen tests and PCR tests are offered to employees. This testing service was also available to third parties on-site such as employees of external companies or guests until autumn 2021. In cooperation with six other companies located in the Laakirchen area, Steyrermühl was able to offer the first and second dose of the COVID vaccine to employees who wanted it in early summer 2021. This offer was taken up by 54 site employees.

During the ongoing COVID-19 pandemic, people have faced psychologically challenging stresses time and again. In order to ease the pressure on the employees concerned, individualized work-from-home arrangements were offered in consultation with management and taking into account the duties of the employees in question.

As there is no end to the pandemic in sight, these measures will be continued next year.

Engaging with communities:

For many years, UPM Steyrermühl has been providing the Papermakers Museum with exhibition space for a symbolic value. Adjoining the museum is ALFA, a culture and events centre that can also be booked for seminars and meetings. The operators are anxious to exceed the well over 100 events a year that were





held there before COVID-19 as soon as possible.

European Capital of Culture Bad Ischl Salzkammergut 2024: a cultural initiative has been laying the groundwork for this since 2020. UPM is providing the association with access to premises.

Sustainability and environmental protection are high on the agenda. We are in regular communication with the Environmental Advisory Council of the municipality of Laakirchen, which is made up in equal measure of representatives from the political parties of the municipal council and of the Laakirchen LUI environmental initiative.

For historical reasons – namely to accommodate skilled workers recruited in Austria’s crown lands – a housing estate was built around the factory; the estate boasted social facilities such as a school, a company nursery, bathing facilities, a hospital and a library. For a long time now, employees have largely created their own homes. However, some of the apartments are rented to expats.



Knowledge is also imparted in the immediate vicinity of these residences: the Papiermacherschule, the training centre for the Austrian paper industry, offers education and further training to become a foreman/industrial foreman in paper technology. “Die Steyermühl,” as the site is known colloquially, of course also invests in young talent from within its own ranks. Young men and women can take apprenticeships to train

as a paper technician, metal technician (main module mechanical engineering), electrical technician (main module automation and process control technology) as well as laboratory technician (main module chemistry).

Environmental parameters

Data on production volumes and the consumption of raw material and energy, as well as all specific indicators per ton of paper, are published as an aggregated figure. This information can be found in the group-level UPM Corporate Environmental and Societal Responsibility Statement for pulp and paper mills.

		2019	2020	2021
Production capacity (UKA)	Paper	Up to 295,000 t	Up to 295,000 t	Up to 290,000 t
Raw materials and additives	Recovered paper Process chemicals Consumables	See the group-level UPM Corporate Environmental and Societal Responsibility Statement for more information		
Energy (EEVG)	Renewable fuels	79%	78%	83%
	Fossil fuels External power supply	See the group-level UPM Corporate Environmental and Societal Responsibility Statement for more information		
Emissions to air (UKA and EEVG)	Carbon dioxide, CO ₂ (fossil)	36,125 t	21,688 t ¹⁾	10,777 t ²⁾
	Nitrogen oxide, NO _x	123.9 t	134.0 t	119.0 t
	Sulphur dioxide, SO ₂	0.0 t	0.0 t	0.0 t
	Particulates	1.1 t	1.5 t	2.6 t
	Carbon monoxide, CO	10.0 t	12.1 t	7.8 t
Water intake (UKA and EEVG)	Process water and cooling water	5,477,912 m ³	5,514,264 m ³	5,173,103 m ³
Discharges to water (Site total)³⁾	Wastewater volume	4,492,620 m ³	4,574,760 m ³	4,381,052 m ³
	COD	436 t	543 t	561 t
	BOD ₅	21.4 t	23.5 t	24.6 t
	Phosphorus	0.75 t	0.72 t	0.8 t
	Nitrogen (inorganic)	1.07 t	0.95 t	0.83 t
	AOX	0.4 t	0.4 t	0.4 t
Waste (UKA and EEVG)⁴⁾	Non-hazardous waste and by-products			
	– Cinerit [®]	14,740 t	30,536 t	28,380 t
	– Ash (fly ash and bottom ash)	28,648 t	15,331 t	16,213 t
	– Others	434 t	363 t	466 t
	Hazardous waste	49.4 t	49.8 t	51.4 t
Land use (UKA)	Total use of land	101.5 ha	101.5 ha	101.5 ha
	Sealed area	41.2 ha	41.2 ha	41.2 ha
	Nature-oriented area on site	0 ha	0 ha	0 ha
	Nature-oriented area off site	60.3 ha	60.3 ha	60.3 ha

¹⁾ Reduction is due to tighter balance sheet limits (related exclusively to paper production).

²⁾ Reduction is due to tighter balance sheet limits and the gas turbine was not required as an energy supplier for paper production.

³⁾ The additional wastewater volume of the sawmill and SLR is not recorded separately because it only amounts to smaller quantities of domestic wastewater.

⁴⁾ Weight when dry

COD: chemical oxygen demand

BOD₅: biological oxygen demand

AOX: adsorbable organic halogens



Performance against targets in 2021

TARGET	STATUS
1 Health and safety <ul style="list-style-type: none"> Reduction in accidents at work: TRIF* 6 (accidents per one million working hours) Proactive reporting: three documented safety observations per employee 	TRIF 6.3 Target not achieved 834 safety observations were submitted Target achieved
2 Energy <ul style="list-style-type: none"> Reduction of the required energy for all refiners incl. pretreatment by at least 67 kWh/t. (= guaranteed value) 	Reference run began in April 2021. The guaranteed value was achieved.
3 Water <ul style="list-style-type: none"> Reduction of fresh water consumption in production by 2 m³/t. 	2.45 m ³ /t. Target achieved
4 Water/air emissions <ul style="list-style-type: none"> Prevent Clean Run category 3–5** deviations 	0 Target achieved
5 Waste <ul style="list-style-type: none"> Safeguard ash recovery rate, expand Cinerit® market 	The previous year's figure was exceeded

Current targets

TARGET	MEASURES 2022	RESPONSIBLE
1 Health and safety <ul style="list-style-type: none"> Reduction in accidents at work: TRIF* 6 (accidents per one million working hours) Proactive reporting: three documented safety observations per employee 	<ul style="list-style-type: none"> Safety inspections and safety observations Consistent implementation of measures resulting from audits, internal standards and group guidelines Implementation of priority topics e.g.: hitching and transporting heavy loads Order and cleanliness at the facility 	All All
2 Energy <ul style="list-style-type: none"> Reduction of the required energy for all refiners incl. pretreatment by at least 67 kWh/t. (= guaranteed value) 	<ul style="list-style-type: none"> Continuation of reference run Evaluation of the annual energy saving potential in April 2022 	Energy/environment
3 Water <ul style="list-style-type: none"> Reduction of fresh water consumption in production by 0.5 m³/t. 	<ul style="list-style-type: none"> Use of working groups to determine potential for improvement 	Production/technology
4 Water/air emissions <ul style="list-style-type: none"> Prevent Clean Run category 3–5** deviations Avoidance of odour emissions 	<ul style="list-style-type: none"> Continuous site operation Compliance with and optimization of internal processes and specifications 	Production/environment/ fire prevention

* TRIF = total recordable injury frequency (total number of all recorded accidents without need for first aid)

** Clean Run deviation: event with harmful effects on the environment



Validation statement

This supplementary report for the calendar year 2021 for UPM-Kymmene Austria GmbH, Fabriksplatz 1, 4662 Steyrermühl, Austria, has been verified within the scope of the EMAS Regulation by

Quality Austria Trainings-, Zertifizierungs- und Begutachtungs GmbH
 Zelinkagasse 10/3, 1010 Vienna, Austria
 AT-V-0004.
 geprüft.

The Managing Environmental Verifiers at Quality Austria Trainings-, Zertifizierungs- und Begutachtungs GmbH hereby declare that the environmental policy, environmental programme, environmental management system, environmental audit and the organization's company environmental audit procedure comply with Regulation (EC) No. 1221/2009 of the European Parliament and of the Council of 25 November 2009 (EMAS Regulation), taking into account the amending Regulations (EU) 2017/1505 and (EU) 2018/2026 and the relevant contents of the supplementary report are valid in accordance with Annex IV, Section B, letters a–h within the scope of the group registration with Reg. No. FI-000058.

The next complete environmental statement will be published in the second quarter of 2025 (with data until the end of 2024).

Steyrermühl, 26 April 2022

Werner Schönggrundner

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